

REMARKS

Claims 1-28 are pending in the application. Claims 1-28 are rejected. Claims 5, 9, 10, and 20 have been amended to clarify the present invention. No new matter has been added.

Figures 6 and 9 have been amended to designate reference numbers 609 and 904, respectively, in accordance with the Examiner's suggestion. Red-lined copies of the drawings indicting the proposed amendments are submitted herewith for the Examiner's consideration. If approved, the Applicants propose to submit corrected formal drawings upon indication of allowable subject matter.

The specification has been amended to correct several grammatical errors in accordance with the Examiner's suggestion. No new matter has been added.

Claims 9, 11, and 18 were rejected to under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the Specification in such a way as to enable one skilled in the art to make and/or use the invention.

Claim 9 has been amended to comply with the thickness of the thermal support material as described in the Specification on page 11, lines 1-19. As for establishing the thickness of the thermal support material during fabrication as shown in FIG. 9, Applicants respectfully submit that dispensing a liquid into a simply calculated volume would be apparent to one of skill in the art. With respect to claim 11, flow prevention of an encapsulation material using the stabilizers is described in the Specification on page 14, line 27 to page 15, line 7, page 9, lines 4-16, page 13, lines 6-14, and shown in FIG. 15, for example. With respect to claim 18, cycle time for a single cell is described in the Specification on page 5, line 9 to page 6, line 1; and an exemplary process to achieve such a cycle time is illustrated on page 5, line 26 to page 6, line 2, for example.

For at least these reasons, Applicants respectfully submit that all claims contain subject matter which was described in the Specification in such a way as to enable one skilled in the art to make and/or use the invention, and respectfully request withdrawal of the rejection under 35 U.S.C. § 112, first paragraph.

Claims 5, 9-10, 18 and 20 were rejected to under 35 U.S.C. 112, second paragraph, as being indefinite and for failing to particularly point out and distinctly claim the invention.

Claims 5, 9, 10, and 20 have been amended to correct any indefiniteness. With respect to claim 18, cycle time refers to the time required to package a device (see the Specification on page 5, line 9 to page 6, line 1), such as one including an LCD assembly as recited in claim 14. Correspondingly, Applicants respectfully submit that all claims are sufficiently definite and respectfully request withdrawal of the rejection under 35 U.S.C. § 112, second paragraph.

Rejections Under 35 U.S.C. § 103(a)

Claims 1-21 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,880,795 to Nagata et al. (“Nagata”) in view of U.S. Patent No. 5,587,817 to Miyamoto (“Miyamoto”). Applicants respectfully disagree.

Nagata describes a liquid crystal display module including a first substrate with at least two sides extending outwardly over the corresponding edges of a second substrate. The first and second substrates are fixed together using an adhesive.

Miyamoto describes a process for simplified manufacturing of a liquid crystal unit. To achieve this simplified manufacturing, Miyamoto proposes the use of rigid height-regulating pins to aid fixture-based positioning and holding of the liquid crystal unit during adhesion between the liquid crystal panel and support plate using an adhesive. The rigid pins are removed after adhesion.

The Examiner contends that the rigid bars 8 of Miyamoto teach a plurality of spaced apart stabilizers. Applicants respectfully disagree, and submit that the rigid bars of Miyamoto are actually part of the fixing tool 7 (col. 3, lines 13-14) and used to temporarily support and position a liquid crystal panel onto a fixing plate 2. The slide bars ⁸ are provided to “slide in the x-direction so that the liquid crystal panel 1 can be moved z-direction” (col. 3, lines 17-19). More specifically, the rigid bars are “moved so as to mount the liquid crystal panel 1 on the height regulating pins 6 on the fixing plate 2” (see col. 3, lines 36-38).

In contrast, the plurality of spaced apart stabilizers of the present invention, as recited, couple a liquid crystal cell to a containment structure in a packaged liquid crystal display. Applicants note that a fixing tool 7 or fixture is not analogous to a containment structure in a packaged liquid crystal display. A fixture is a static positioning and holding device used solely during manufacture. After manufacture,

or adhesion in this case, the fixing tool 7 is re-used for another liquid crystal unit. A containment structure is part of the packaged liquid crystal display, and is part of the packaged liquid crystal display after manufacture is completed. Thus, the rigid bars of Miyamoto are not used to couple edge portions of a liquid crystal cell to a containment structure in a packaged liquid crystal display, as recited in independent claims 1 and 14. This is further evidenced by the cutting of Miyamoto's rigid bars after manufacture in the fixture is finished.

Therefore, the cited references, alone or in combination, fail to teach or remotely suggest "a plurality of spaced apart stabilizers arranged to couple edge portions of the liquid crystal cell to the containment structure without adhering the bottom surface of the liquid crystal cell to the bottom surface of the containment structure" as recited in independent claim 1. In addition, the cited references fail to teach or remotely suggest "forming a plurality of spaced apart stabilizers arranged to couple an edge portion of the liquid crystal cell to the containment structure without adhering the bottom surface of the liquid crystal cell to the bottom surface of the containment structure" as recited in independent claim 14.

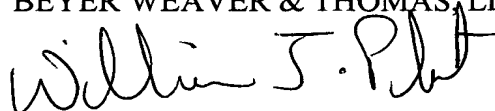
Claims 2-13 and 15-21 each depend either directly from independent claims 1 and 15, respectively, and are therefore respectfully submitted to be patentable over the art of record for at least the reasons set forth above with respect to the independent claims. Further, the dependent claims recite additional elements which when taken in the context of the claimed invention further patentably distinguish the art of record. For example, dependent claim 3 recites "wherein the stabilizers are sufficiently compliant such that they do not induce substantial stresses in the LCD assembly". Applicants note that neither Nagata or Miyamoto does not teach or suggest compliant stabilizers of any sort. Indeed, the rigid bars of Miyamoto are expressly rigid to provide suitable fixturing forces for maintaining fixturing tolerances, as one of skill in the art will appreciate.

For at least these reasons, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

Conclusion

In view of the foregoing, Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the number set out below. If any fees are due in connection with the filing of this paper, the Commissioner is authorized to charge such fees to Deposit Account 50-0388 (Order No. NSC1P127).

Respectfully submitted,
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